**Enter number of sensors to sort:** 10000

**7.27103 milliseconds; STL sort; first few sensors are**

**(5494, 58.2867) (4911, 58.16) (6566, 57.9867) (5753, 57.44) (1943, 57.4067)**

**0.519317 milliseconds; STL sort if already sorted; first few sensors are**

**(5494, 58.2867) (4911, 58.16) (6566, 57.9867) (5753, 57.44) (1943, 57.4067)**

**2919.51 milliseconds; insertion sort if not already sorted; first few sensors are**

**(5494, 58.2867) (4911, 58.16) (6566, 57.9867) (5753, 57.44) (1943, 57.4067)**

**436.124 milliseconds; insertion sort if already sorted; first few sensors are**

**(5494, 58.2867) (4911, 58.16) (6566, 57.9867) (5753, 57.44) (1943, 57.4067)**

**13.1742 milliseconds; STL sort of pointers; first few sensors are**

**(5494, 58.2867) (4911, 58.16) (6566, 57.9867) (5753, 57.44) (1943, 57.4067)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 20000

**13.0965 milliseconds; STL sort; first few sensors are**

**(1605, 58.2867) (12889, 58.16) (17101, 57.9867) (12388, 57.8867) (15029, 57.8733)**

**0.680053 milliseconds; STL sort if already sorted; first few sensors are**

**(1605, 58.2867) (12889, 58.16) (17101, 57.9867) (12388, 57.8867) (15029, 57.8733)**

**13760.5 milliseconds; insertion sort if not already sorted; first few sensors are**

**(1605, 58.2867) (12889, 58.16) (17101, 57.9867) (12388, 57.8867) (15029, 57.8733)**

**1697 milliseconds; insertion sort if already sorted; first few sensors are**

**(1605, 58.2867) (12889, 58.16) (17101, 57.9867) (12388, 57.8867) (15029, 57.8733)**

**27.7374 milliseconds; STL sort of pointers; first few sensors are**

**(1605, 58.2867) (12889, 58.16) (17101, 57.9867) (12388, 57.8867) (15029, 57.8733)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 40000

**32.2669 milliseconds; STL sort; first few sensors are**

**(19779, 58.2867) (29721, 58.1667) (26289, 58.16) (14584, 58.14) (36949, 58.0867)**

**1.76182 milliseconds; STL sort if already sorted; first few sensors are**

**(19779, 58.2867) (29721, 58.1667) (26289, 58.16) (14584, 58.14) (36949, 58.0867)**

**63532 milliseconds; insertion sort if not already sorted; first few sensors are**

**(19779, 58.2867) (29721, 58.1667) (26289, 58.16) (14584, 58.14) (36949, 58.0867)**

**7109.23 milliseconds; insertion sort if already sorted; first few sensors are**

**(19779, 58.2867) (29721, 58.1667) (26289, 58.16) (14584, 58.14) (36949, 58.0867)**

**48.8055 milliseconds; STL sort of pointers; first few sensors are**

**(19779, 58.2867) (29721, 58.1667) (26289, 58.16) (14584, 58.14) (36949, 58.0867)**

**Program ended with exit code: 0**

**Only testing STL sort:**

**Enter number of sensors to sort:** 100000

**85.4988 milliseconds; STL sort; first few sensors are**

**(659, 59.4733) (88079, 59.0133) (6175, 58.72) (59545, 58.7067) (72245, 58.7)**

**5.05389 milliseconds; STL sort if already sorted; first few sensors are**

**(659, 59.4733) (88079, 59.0133) (6175, 58.72) (59545, 58.7067) (72245, 58.7)**

**177.446 milliseconds; STL sort of pointers; first few sensors are**

**(659, 59.4733) (88079, 59.0133) (6175, 58.72) (59545, 58.7067) (72245, 58.7)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 200000

**216.025 milliseconds; STL sort; first few sensors are**

**(12922, 60.1333) (16045, 59.4733) (116261, 59.1867) (75300, 59.0133) (93124, 58.72)**

**10.1966 milliseconds; STL sort if already sorted; first few sensors are**

**(12922, 60.1333) (16045, 59.4733) (116261, 59.1867) (75300, 59.0133) (93124, 58.72)**

**337.035 milliseconds; STL sort of pointers; first few sensors are**

**(12922, 60.1333) (16045, 59.4733) (116261, 59.1867) (75300, 59.0133) (93124, 58.72)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 400000

**449.022 milliseconds; STL sort; first few sensors are**

**(388103, 60.1333) (319469, 59.6467) (208649, 59.5) (387170, 59.4733) (127661, 59.3933)**

**20.2468 milliseconds; STL sort if already sorted; first few sensors are**

**(388103, 60.1333) (319469, 59.6467) (208649, 59.5) (387170, 59.4733) (127661, 59.3933)**

**762.303 milliseconds; STL sort of pointers; first few sensors are**

**(388103, 60.1333) (319469, 59.6467) (208649, 59.5) (387170, 59.4733) (127661, 59.3933)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 800000

**1024.33 milliseconds; STL sort; first few sensors are**

**(546463, 61.4) (406258, 60.1333) (581297, 59.78) (485466, 59.6467) (747999, 59.5)**

**41.4295 milliseconds; STL sort if already sorted; first few sensors are**

**(546463, 61.4) (406258, 60.1333) (581297, 59.78) (485466, 59.6467) (747999, 59.5)**

**1586.37 milliseconds; STL sort of pointers; first few sensors are**

**(546463, 61.4) (406258, 60.1333) (581297, 59.78) (485466, 59.6467) (747999, 59.5)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 1600000

**4274.79 milliseconds; STL sort; first few sensors are**

**(1194800, 61.4) (849400, 60.5133) (135467, 60.3067) (367552, 60.1333) (68195, 60.06)**

**79.0059 milliseconds; STL sort if already sorted; first few sensors are**

**(1194800, 61.4) (849400, 60.5133) (135467, 60.3067) (367552, 60.1333) (68195, 60.06)**

**3321.6 milliseconds; STL sort of pointers; first few sensors are**

**(1194800, 61.4) (849400, 60.5133) (135467, 60.3067) (367552, 60.1333) (68195, 60.06)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 3200000

**12779.3 milliseconds; STL sort; first few sensors are**

**(1441515, 61.4) (1199446, 60.52) (1885257, 60.5133) (2365095, 60.3867) (1598649, 60.3067)**

**144.37 milliseconds; STL sort if already sorted; first few sensors are**

**(1441515, 61.4) (1199446, 60.52) (1885257, 60.5133) (2365095, 60.3867) (1598649, 60.3067)**

**43504.8 milliseconds; STL sort of pointers; first few sensors are**

**(1441515, 61.4) (1199446, 60.52) (1885257, 60.5133) (2365095, 60.3867) (1598649, 60.3067)**

**Program ended with exit code: 0**

**Enter number of sensors to sort:** 6400000

**56510.1 milliseconds; STL sort; first few sensors are**

**(474932, 61.4) (3233560, 61.1) (6031704, 61.06) (5647211, 61.0133) (5156198, 60.8333)**

**13236.4 milliseconds; STL sort if already sorted; first few sensors are**

**(474932, 61.4) (3233560, 61.1) (6031704, 61.06) (5647211, 61.0133) (5156198, 60.8333)**

**1.81852e+06 milliseconds; STL sort of pointers; first few sensors are**

**(474932, 61.4) (3233560, 61.1) (6031704, 61.06) (5647211, 61.0133) (5156198, 60.8333)**

**Program ended with exit code: 0**